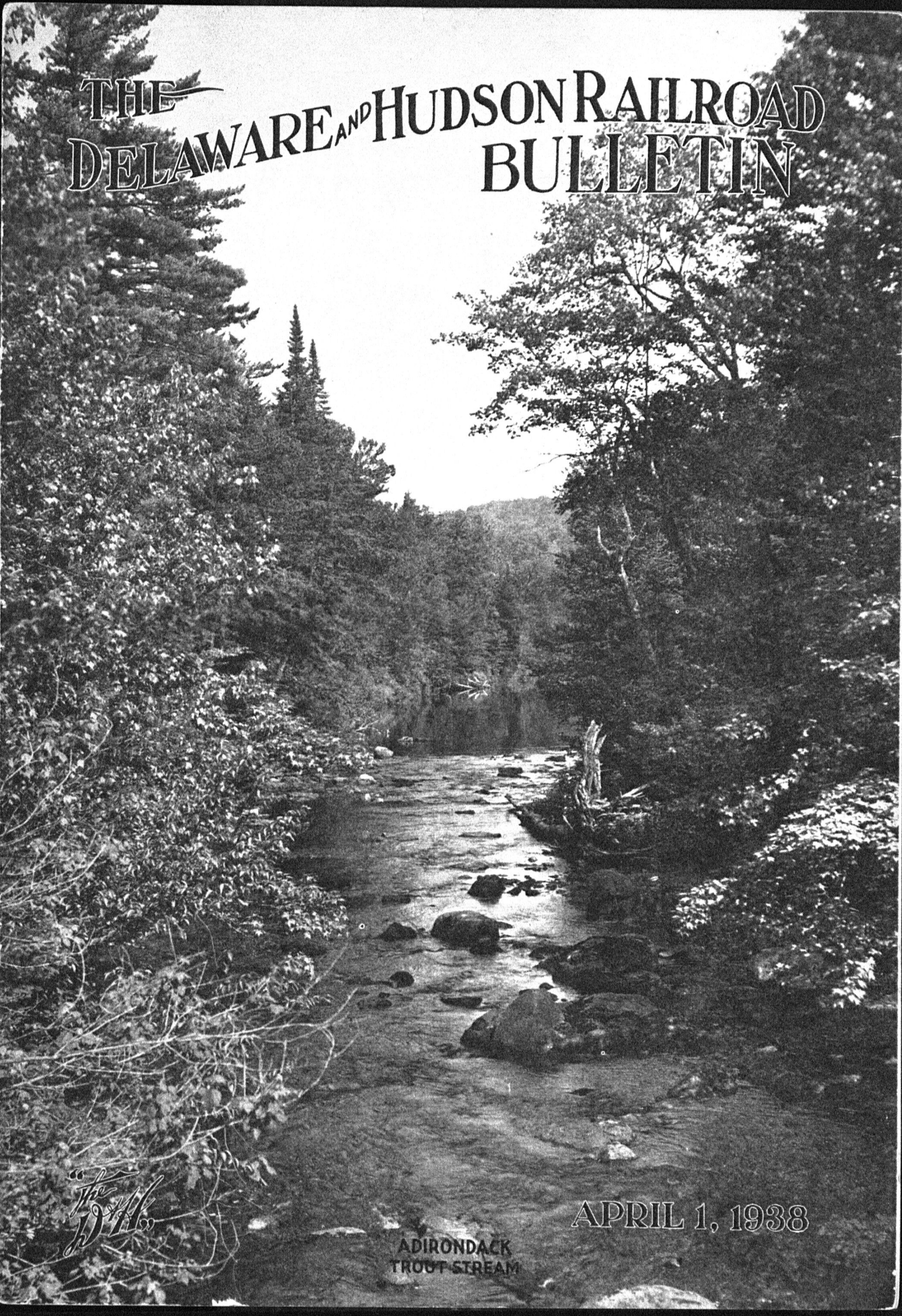
THE DELAWARE AND HUDSON RAILROAD BULLETIN



APRIL 1, 1938

ADIRONDACK TROUT STREAM

The Hills Ahead

THE hills ahead look hard and steep and high:
So much so we behold them with a sigh;
But as we near them, level grows the road.
We find on every slope, with every load,
The climb is not so steep, the top so far,
The hills ahead look harder than they are.

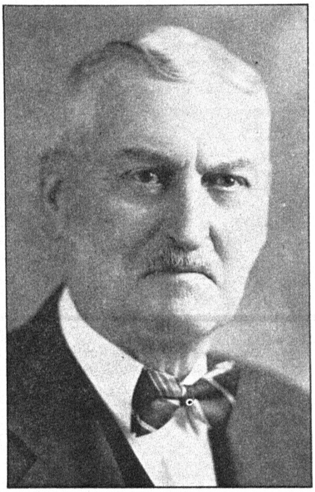
And so with troubles, though they seem so great,
That men complain, and fear, and hesitate,
Less difficult the journey than we dreamed,
It never proves as hard as once it seemed.
There never comes a hill, a task, a day,
But, as we near it, easier the way.

—INKLINGS.

The
DELAWARE AND HUDSON RAILROAD
CORPORATION
BULLETIN

Black Powder Blasts

Loosened Coal in Mines Before Dynamite Was Developed, Says Veteran



JAMES MORPETH

BEFORE dynamite was developed, black powder was used to blast coal loose from the veins in the mines, an operation which required great skill and extreme care on the part of the miner, says JAMES MORPETH, retired veteran of 63 years' service with the Delaware and Hudson. After a hole had been driven into the rock and coal with sledge hammers and 5- to 6-foot "jumper drills," the miner made his own black powder cartridge. A sheet of heavy paper was rolled into a tube the size of the drill hole and one end was folded shut. This end, and the overlapping edge of the paper along the length of the tube, were sealed with "miner's soap," a paste in cake form. The proper amount of black powder was then measured out of the keg and poured into the tube. One end of a blasting barrel, a long, metal pipe, was inserted in the open end of the cartridge, which was then tied shut.

Next, the cartridge was pushed into the drill hole and gravel and dirt were tamped tightly in around the blasting barrel, one end of which protruded from the hole. These preparations completed, the charge was fired with a "squib," a cloth container, about four inches long by ⅜-inch in diameter, filled with powder. The miner bit off one end to expose the powder and inserted it in the blasting barrel. The other end was then ignited in the flame of the miner's oil lamp. When the powder caught fire the squib was repelled or "kicked" back through the tube after the manner of a sky rocket.

Great care had to be exercised to prevent accidents in blasting operations. Each miner and laborer wore an oil lamp on his cap from which dropped flaming bits of wick and drops of oil. To avoid premature explosions while powder was being transferred from keg to cartridge, workmen were instructed to remove their lamps and set them to one side. Failure to observe this precaution resulted in many fatalities among miners and laborers.

MR. MORPETH saw service in several departments of the mines before transferring to the steam railroad. Born at Wyoming, Luzerne County, Pa., November 18, 1865, JAMES went to work at the age of nine, in 1874, as a slate picker in the Delaware and Hudson's Mill Creek Breaker, which stood on a site in the middle of what is now the Hudson Yard. Shortly afterward he was made car oiler at the head of the breaker. Strings of five 2½-ton coal cars from nearby workings were pulled up a 250-foot plane to a track built on a level with the top of the breaker. Here they were uncoupled and run one at a time to the dumper which emptied them into chutes leading down through the breaker. Each day JAMES filled the oil cups on the wheels on one side of every car dumped; the next day he oiled those on the other side.

JAMES was soon promoted again, this time to driving a mule on the culm bank, hauling cars of refuse from the breaker to the far end of the long pile of rock and slate nearby. Next, he was sent down in the mines to tend a ventilating door. Fresh air was sucked down into the workings by a huge fan which forced air out of a ventilating shaft. To direct the air through the desired course in the mines, heavy wooden doors were used to block off certain passages. Door tenders were stationed at such points to open and close the doors when cars approached. For a time, too, he was a "nipper," the term applied to boys employed to lead unruly mules while the driver was busy coupling and uncoupling cars, throwing switches, and other work.

When JAMES was thirteen he became a mule driver in the mines, pulling empty cars into the chambers in which miners were working and removing loads to the "passing branch" from which point they were hauled to the foot of the slope in trains of five cars. The mules, by their unpredictable conduct and viciousness taught many a man to swear, says MR. MORPETH. Mules used in slope workings were usually driven out to the barns at night; those working at shaft operations were kept in underground stables except for intervals when the mine was idle. At sixteen JAMES was made a laborer, loading coal into the cars after it had been blasted loose by the miner.

The most dangerous job MR. MORPETH ever had was that of "slope runner"—hitching loaded cars to the cable for hoisting up the ¾-mile long slope and releasing empties that returned. As there was no way of signaling the engineer at the head of the slope, the runner had to uncouple the empties and hook onto the string of loads in the short interval while the cable was slack. If cars became derailed while ascending or descending the long plane they were usually demolished before anyone knew anything was wrong.

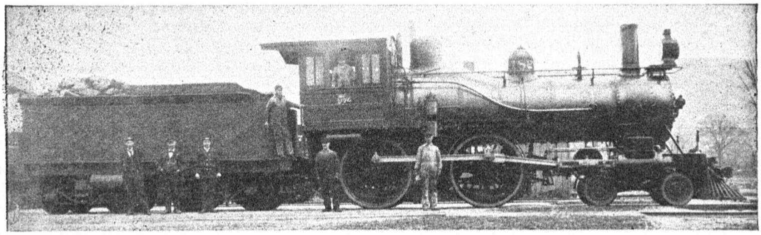
One day his friend, Joseph Ayers, a conductor on the steam railroad, suggested that JAMES come to work with him and when he assented Mr. Ayers persuaded Yard Master Milot Shiffer to hire him as a brakeman on mine runs out of "Pumpkin Hollow," now Hudson.

After one and a half years as brakeman, JAMES transferred to the engine service, firing for Engineer "Judd" Bailey for six years. Mr. Bailey, the son of a school teacher, encouraged JAMES to study, thereby gaining the education he had failed to obtain as a boy. Later, while working with Engineer Reuben Edwards, he became an extra engineer, being permanently promoted in 1900.

At first MR. MORPETH pulled the "transfer job" picking up cars in the Pennsylvania Railroad yard at Wilkes-Barre and taking them to the Delaware and Hudson yard and classifying them. For nearly 30 years, prior to 1930, he held various mine runs out of Wilkes-Barre. His last run, which he held for the seven years prior to his retirement, June 1, 1937, was on pusher engines operating out of Hudson.

MR. MORPETH, who lives at 193 Bowman Street, Wilkes-Barre, is a member of The Delaware and Hudson Veterans' Association, the Loyal Order of Moose, and the Brotherhood of Locomotive Engineers. He and Mrs. Morpeth, who celebrated their golden wedding anniversary November 22, 1934, have four children: a son, Embelton, of Philadelphia, Pa.; Mrs. Joseph F. Syron, of Wilkes-Barre; Mrs. H. C. Harris, of Philadelphia; and Mrs. T. E. Hayes, wife of a physician of Burlington, Vt.

Who Can Identify This Old Locomotive and Crew?



An Authority on Government Discusses the

Social Security Act

By WILLIAM HOWARD DOUGHTY, Jr., *Professor of Political Science,* Williams College

MUCH has already been written and spoken in criticism of the Social Security Act passed by the last Congress. That Act, it will be recalled, provides for the creation of a huge so-called fund, which, with the running of time will amount to some forty-five or fifty billions of dollars to which the needy aged are supposed to look as security for the payment of such annuities as they may become entitled to upon arriving at the age of 65.

In order to establish this so-called fund the Act requires employers and employes to pay into the United States Treasury a certain percentage of wages and salaries paid and received, respectively. It does not, however, provide that the monies so paid in shall be segregated from other receipts by the Government, or in any way safeguarded against diversion. What it does do is to require that for every thousand dollars so paid in, the Treasury shall deposit in the so-called fund a thousand dollar United States Bond bearing interest at a stated rate.

Even a superficial consideration of this set-up clearly reveals the fact that the so-called fund consists entirely of promises by the Government at some future time to pay to itself (or one of its departments, which amounts to the same thing) some forty-five or fifty billions of dollars. One does not have to question the value of government bonds as an investment when held by a third party to reject the assumption that they constitute an investment when held by the United States itself. The bonds required by the Act to be deposited in the so-called fund are not assets of the United States, rather are they its liabilities. No government, any more than an individual, can increase its assets by issuing its own obligations payable to itself.

If the plan contemplates that in course of time the interest accruing on the bonds so deposited will suffice to meet the annuities falling due every fiscal year, the question arises, how is the Government going to provide the funds with which to pay such interest, and the further question remains, how is the Government going to find the funds with which to pay the principal amounts of the bonds as they mature. The answer is, of course, in both cases, by the exercise of its power of taxation, for the monies paid in by employers and employes is now being, and, unless the Act be amended, will continue to be spent for purposes other than the payment of annuities.

The situation at the end of some forty years then would resolve itself into this: Assuming that the so-called fund would by that time have increased to such an amount that the annual interest thereon would suffice to meet the annuities falling due in that and succeeding years, the Government would be obliged to impose taxes in sufficient amount to meet such interest obligations. That amount, however, would be the approximate equivalent of the amount of the annuities it would be obligated to pay. What, then would have been gained by increasing the national debt by some forty-five or fifty billions of dollars? The current tax burden upon the people at large would be exactly the same as though the annuities were required to be cared for on a straight pay-as-we-go basis, and there would be the enormous added burden of taxation to meet and discharge the principal amount of the bonds in the so-called fund as they severally matured.

As the Act now stands and is being administered, therefore, it is mainfest that it not only fails utterly to provide any security for the needy aged, such as would be the case with a fund set up by a bank, trust company, insurance company or other fiduciary, but that it will inevitably impose, in addition to the contributions now required of employers and employes, an added crushing burden of taxation.

Fortunately there are indications that Congress is contemplating the abandonment of the scheme of creating a huge so-called fund in favor of a pay-as-we-go policy supplemented by a relatively small so-called contingency fund, that is, a fund which may be drawn upon when, for any reason, the taxes in a given year fail to equal budgetary estimates. But in the discussions of such a possible amendment of the Act the writer has encountered no suggestion that the so-called fund be required to consist of anything other than Government bonds. If, however, the character of this so-called fund is, except as to amount, to be the same as that called for by the Act as it now stands it will still be open to the criticism that it is no true fund.

This fact, however, should not lead to the conclusion that the idea of a contingency fund should be abandoned and reliance placed solely upon a pay-as-we-go policy. There certainly should be some reservoir provided to which the needy aged may look for the payment of their annuities in the event of a marked falling off of tax receipts. The question, therefore, still remains as to what should be the nature of such fund.

The following suggestions are submitted with a full realization of the almost utter hopelessness of their receiving even perfunctory official consideration. But sound financial policy as well as common honesty toward the needy aged, not to mention the great over-burdened tax-paying public, demand that any fund, whether great or small, be created and maintained upon the following broad principles.

(a) The necessary size of such fund should be determined upon sound actuarial principles.

(b) The corpus of the fund should be required to be of the same character as the portfolios of the strongest insurance companies, banks, trust companies and management investment trusts, that is, of income-yielding securities of private corporations, mortgages on preferred real estate, State, County and Municipal bonds, foreign securities and cash.

(c) It should be required that not more than a certain percentage of the fund could be invested (1) in any given class of securities—rails, public utilities, industrials, government securities foreign and domestic, etc.—and (2) that not more than a certain percentage could be invested in the securities of any one company or governmental unit within a given class. (3) There should be a further restriction to the effect that in no event could there be acquired for account of the fund more than a specified minority holding (say 30 per cent) of the voting stock or other controlling securities of any one domestic corporation.

(d) It should be required that the responsibility for investing and keeping invested the monies paid in by employers and employes, up to such an amount as may be determined to be the proper size of the fund, be committed solely to a board or commission composed of individuals of recognized outstanding ability and experience in the investment field, and holding no other official position under the Government.

(e) It should be required that the actual purchase and sale of securities for account of the fund should be made by or through the Treasury Department, but only upon the advice or recommendation of such board or commission.

(f) It should be required that from the general funds in the Treasury there should each year be set aside an amount equal to the aggregate of the monies paid in during the previous year by employers and employes, the same to be allocated as follows: (1) in such amount as might be necessary to restore the fund to the principal amount prescribed by the Act, should it have been necessary to draw upon the same during the previous year, and (2) to the payment of annuities necessary to be met during the current year.

(g) It should be required that the income arising from the securities constituting the fund should be allocated in the same way.

The advantages inherent in such a scheme as compared with that set up by the Act as it now stands, or with any other providing that the fund shall consist wholly of Government bonds, are too manifest to admit of question or dispute, and may be summarized as follows:

(a) The necessary and proper size of the fund would be scientifically determined, and bear a justifiable relation to the purpose for which it was created.

(b) A fund so constituted would be a real fund and would afford a real protection and security to the needy aged. Furthermore, and this is a very important consideration, it would not only obviate the necessity for any increase in the national debt, but would be an actual source of income to the Government, thereby reducing the burden of general taxation necessary to meet accruing annuities.

(c) The requirements set up in this paragraph would (because of the restrictions upon percentages of the fund that could be invested in any one class of securities and of any one security within a given class) not only insure that wise diversification essential in all large scale investment, but would practically eliminate the possibility of favoritism toward any one interest or group of interests. Furthermore, insofar as the fund contained domestic securities (private and/or public) it would give to the Government an added stake in the prosperity of private enterprise, and in State and local good government. The third restriction would guarantee against a governmental or political control of the management of a corporation through majority voting power.

(d) This requirement should insure expert judgment and advice in the very important matter of maintaining the character of the corpus of the fund.

(e) This requirement, while it would not wholly eliminate the possibility of a diversion of the assets of the fund to purposes other than those of its creation, would unquestionably tend to reduce the chances of any such diversion. The board or commission empowered to act only in advisory capacity would have neither motive nor power to

(Continued on page 65)

The Anthracite Problem

An Address by Mr. Walter Gordon Merritt, Counsel for the Anthracite Institute, Before the Twenty-first Annual Convention of the Pennsylvania State Chamber of Commerce, at Harrisburg, Pa., February 17, 1938.

REITERATION does not make truth, but it often creates a counterfeit which for a long time passes as truth. Unfortunately, it is often true that many people, consciously or unconsciously, are overcome with a desire to prove, not what is important or accurate, but what supports their particular ideas. In the economic world the storehouses of fact, knowledge and experience, which necessarily are under the control of the captains of industry, are often ignored, with the result that remedies are sometimes prescribed without first understanding the symptoms of the patient.

To cure the public of anthracite-phobia, to find antidotes for the poisons of untruths and half truths, and to substitute a sane, wholesome and enlightened public opinion, is a task which offers you a challenge. The confusion of conflicting statements of fact and theory, and the agility with which the critics of the Industry, like the chamois of the Alps jump from crag to crag, create a state of utter despair for the honest economist and logical thinker who seek a focal point for real discussion.

The problem of the Anthracite Industry is more than the problem of the operators and the workers in the mines and breakers; it is broader than the interests of thousands of retail fuel dealers who handle this product and millions of consumers who burn it. It is of prime importance to the economy of the entire State of Pennsylvania. The Industry is a great consumer as well as a great producer; it buys a wide variety of supplies for which it pays millions of dollars annually; its taxes are the principal support of entire communities; it provides freight cargoes by the trainload; and its financial transactions are important to our banking institutions. This great asset of the Commonwealth is now in danger. It is, therefore, fitting that the Pennsylvania State Chamber of Commerce should be informed on the state of this Industry, how it is meeting the double threat of rising costs and shrunken markets, the extent to which the abuse heaped upon it is couched in truth or falsehood, and above all as to the merits of the conflicting proposals for State or Federal ownership, operation, or control. For this rare opportunity to state its case to the public the Anthracite Industry thanks you.

What is the matter with anthracite?

It is not the maintenance of high mine prices by the producers. The cost of producing anthracite, which represents a greatly decreased cost due to increased efficiency in the last few years, is $4.75 per ton, of which the labor cost is $2.95, or about two-thirds. If 50c. a ton is added for interest on funded debt the average cost is $5.25 a ton.

The average price, or realization, on the different sizes of anthracite, as shown by the figures of the United States Bureau of Mines, declined from $5.98 per ton in 1926 to $4.18 per ton in 1935, the latest official figures. In 1937, this realization receded further to at least $4.00 a ton. Thus, the state of Pennsylvania is subsidizing the consumers by the difference between the cost of over $5.00 per ton, and the sales price of $4.00 per ton. The effect of this on the balance sheets of the companies is all too clear. The working capital of the companies from January 1, 1927 to January 1, 1936 has shrunk from $111,000,000 to $8,800,000, thus leaving little fat for a starved industry to feed upon. I estimate that net losses for the year 1937 ran between $25,000,000 and $30,000,000, or over three times these remaining reserves, and on the present basis these losses will be greater in 1938.

What is the matter with anthracite?

It is not the maintenance of a monopoly, for there is no monopoly. Monopolies have their evils of an anti-social character, and sometimes the existence of monopoly not otherwise provable is inferred from the existence of the evils. In the case of the Anthracite Industry, it is impossible to point to a single symptom, or condition, from which monopoly might be inferred, or which even shows the existence of any mischief of a kind that follows monopoly. Prices are devastatingly below cost. There is no allocation of markets. Labor has come into its own—if not more.

To conceive of a state of affairs where the anthracite producers could oppress the public by unfair prices under present conditions would be as impossible as conceiving a round triangle, or a short neck giraffe. As the little child said: "There ain't no such animal." Competition among anthracite producers is so severe and destructive that on two occasions the Industry has sought to establish a price filing system to prevent unfair price discriminations, and to provide an open and frank policy on the part of all operators, in respect to prices and terms of sale. But even that system has not as yet arrested the downward trend in prices.

Moreover, if the entire Anthracite Industry were operated as a unit, with competition within the Industry brought to an end, the evils of monopoly would not arise, for the competition of other fuels—the external competition of the Industry, which is its major problem—would prevent charging even an adequate price to yield any substantial return on invested capital.

There is no semblance of monopoly in the Anthracite Industry, but possibly everybody interested in the production, sale or use of anthracite would be better off if there were such a monopoly, leaving competition of other fuels as the staunch protector of the public interest. The Anthracite Industry is only a small per cent of the total fuel industry of the country, so that however centralized its operation, it could not override the public interest.

Monopoly, it is believed, raises prices and lowers quality, but in the Anthracite Industry prices have not only been lowered but quality has been improved.

The United States Bureau of Mines, acting on the request of the Anthracite Institute, in 1935 took 286 samples of anthracite from widely separated parts of the region and tested them for chemical content. Comparison of the results with similar tests made in 1915 showed that the B. T. U. or heat content of all sizes had increased, and in some cases as much as 10%. The ash content showed a decrease that for some sizes amounted to 20%. Pennsylvania Anthracite is a purer fuel today than it has ever been since the first ton was mined.

In every way, the consumer of anthracite gets more for a dollar today than he ever got before. The Industry is not milking the consumer. The consumer is milking the Industry.

What is the matter with anthracite?

It isn't the charge for royalties. Excessive royalties, if any, are so few in number that they do not affect the general picture, or the general price structure. In some instances, the taxes paid by the owner of the fee are greater than the royalties. It creates nothing but confusion to discuss royalties as an important phase of this problem. When the microscope of public critics is searching for an answer, which wishful thinking makes it desire, it exalts trifles.

What is the matter with anthracite?

Is it the freight rate structure? Whether or not the freight rate structure be one of the contributing factors, it must be remembered that, except possibly for intra-state movements, the railroads, and their established freight rates, are under the jurisdiction of the Interstate Commerce Commission, a federal administrative board, which alone has power to deal with this situation. The anthracite operators are not responsible for its acts of omission or commission. The exclusive responsibility of the Interstate Commerce Commission cannot be modified by the Governor of this Commonwealth, or the President of the United States, but only by an act of Congress to amend the Interstate Commerce Act.

The operators feel that present freight rates on anthracite are too high, and that relief in that direction would help this Industry. They are proceeding, therefore, in an orderly fashion, in accordance with the laws of the land to secure such relief. In a proceeding known as Ex parte 123, the railroads petitioned for increased rates to save them from general bankruptcy. The Commission at the instance of the Industry exempted anthracite from the increased rates granted the carriers last November, dwelling at length on the depressed condition of the Industry, and its inability to bear further burdens.

Another proceeding, brought by a large group of producers seeking a reduction of Tidewater rates to New York, is also pending, and if successful, will have substantial effects on prices in the United States and Canada.

The importance of anthracite freight rates both to carriers and producers is evidenced by the figures. Anthracite carrying roads receive annually $108,000,000 for transporting this fuel. It is an interesting fact that this transportation toll is over 50% of the selling price of anthracite at the mine. It is also to be noted that this source of revenue of six of these railroads is over one-third of their total revenue, and in one instance is over two-thirds.

The essence of the problem, therefore, may be summed up in the fact that the Anthracite Industry needs the money, because it is operating at a loss, and the railroads also need the money. The query which naturally suggests itself is whether or not a reduction in freight rates, coupled with other reductions in costs which burden the sale of anthracite, might not increase the tonnage volume and thereby improve the status of the railroads.

In an effort to meet the competition of trucks, the carriers in 1935 published a series of "motor compelled" rates as a temporary measure, embracing destinations from New York to Delaware, and varying from a few cents to 50c. per ton below established freight rates. Since these reductions, however, were limited to prepared sizes and did not extend to steam sizes, the queer result has been, in some cases, to maintain higher rates on steam sizes than on the higher price domestic sizes.

What is the matter with anthracite?

It is not an illiberal and anti-social attitude on the part of the employer toward labor. There is no other industry in the United States, which for so long a period of time has recognized to such an extent the principles of collective bargaining, union recognition, conciliation and arbitration. Since 1902, a form of industrial government, ideal in theory, which maintains a Board of Conciliation with an Umpire, has protected the worker against any injustice however small, by providing for arbitration in all cases of disagreement during the term of the collective bargaining agreement. The inflexible wage scales established out-strip comparable wage scales in other industries, and have been maintained ever since the last increase in 1923 without regard to depressions or recessions.

The only criticism of the Anthracite Industry in this respect is that the operators have been too liberal in granting wage scales so high that the sale of the product has been retarded. Through a vicious circle increased wage rates have meant decreased sales and decreased earnings for employees.

In 1924, the last normal year in the Industry, the statistics of the United States Department of the Interior show that 158,798 mine employees in the anthracite region worked 274 days and earned an average wage of $1,867.53 each. In 1935 the same authority shows the 94,053 men employed worked only 189 days and earned an average wage of $1,235.43 per year at higher wage rates. This drop in working days and annual earnings was brought about by the loss of markets. It is altogether probable that decreased wage rates would mean greater employment with increased earnings, for with reductions in wage rate, markets could be recaptured by lower prices.

What is the matter with anthracite?

Does it lie in a lack of imagination and inventive genius on the part of the producing end of this Industry in promoting the sale of its product? To any fair observer, the answer must be "No." Perhaps years ago before the days of the competition of other fuels the Industry may not have had occasion to develop real sales capacity. In those days, and in fact within a decade, anthracite was looked upon as a public necessity, and the salesmanship within the Industry may well have been in inverse ratio to the needs of the public. Moreover, when that era passed away, we may assume, without admitting, that the Industry was sluggish in recognizing and dealing with the changed condition. It may also be admitted that when the Industry awoke to a belated consciousness of its plight, it took some time to unite, organize, and put into operation an adequate promotional program.

But assuming the worst against the Industry in this respect, that condition no longer exists. The anthracite producers, awake at last to the necessities of the situation, are putting forth a collective effort in this direction, which can stand scrutiny. It avails little, therefore, to spend time in discussing conditions and responsibilities in respect to a picture which has vanished from the screen. As forward-looking people, the business men assembled in this Convention, as well as the heads of this Commonwealth, and the Federal Government, are interested in results for the future and not in apportioning blame for the past.

Before outsiders diagnose the sickness of this Industry, it is well that they should read the record as to the collective efforts of this Industry to improve its position through promotional activities. Let us summarize the facts.

For many, many years, the larger producers have developed and maintained well-trained sales forces, and through outstanding advertising agencies, or otherwise, have carried on intelligent advertising campaigns.

In 1924, the Anthracite Operators' Conference employed a group of engineers, to develop methods for the more intelligent use of anthracite. Out of this movement grew the anthracite service work of the Anthracite Institute, which employed a force of heating experts scattered throughout the anthracite consuming market. They visited dealers and consumers teaching better firing methods, proper selection and care of equipment, and giving expert counsel on the many different problems of builders, architects, apartment house owners, etc.

In 1930, the Anthracite Institute established a fully equipped Research Laboratory at Primos, just outside of Philadelphia. In this Laboratory, every device for burning anthracite is tested under service conditions. Here, manufacturers of grates, boilers, stokers, ash removers, ranges, thermostats and allied devices, send their products to be tested, and here the equipment which meets the tests is given the Laboratory's seal of approval. Nor do the engineers proceed on the theory that everything comes to him who waits. They go out into the country, contacting manufacturers and designers of equipment, with a view to stimulating the invention and production of improved devices.

In 1936, a still further effort was made for the promotion of anthracite and anthracite burning equipment, through the organization of Anthracite

Industries, Inc. Subscriptions by producers for underwriting that activity covered an average of nearly a million dollars a year for a period of three years. That organization took over the Laboratories at Primos, and has a force of 35 representatives strategically placed in the United States and Canada, working with consumers, dealers, architects, owners, and every other group interested in the cause of anthracite.

It is also carrying on an extensive advertising campaign in newspapers, magazines and trade papers, and has opened permanent exhibits in New York, Philadelphia and Boston, as well as conducted special exhibits in many other cities, for the purpose of demonstrating the modern use of this fuel.

The Laboratory at Primos has also been experimenting in respect to new uses for the product, and various uses for by-products. Already it had been discovered by one agency of the Industry that a fine size of pure anthracite, which has been given the name of "Anthrafilt" is superior to sand as a filtrant for water, and many municipal plants, as well as private industrial plants, are using this product for that purpose. The Anthracite Fellowship of the Mellon Institute of Pittsburgh is studying the possibilities for utilizing ash, and among the suggestions in this direction have been its use as a soil conditioner, and as material for tiles.

Having now dispelled mistaken notions as to some imaginary delinquencies of the Anthracite Industry, let us turn to some of the real causes of its present plight.

What is the matter with anthracite?

It is primarily the loss of nearly 50% of its normal market to competing fuels, such as coke, oil, gas and bituminous coal—which loss began to make itself markedly felt as a result of the prolonged strike of 1925 and 1926, when a disgusted public was forced to turn at least temporarily to other fuels. Year after year until recently, this loss has been progressive. The competition of one or more of these substitutes meets the Industry in every important market and to an important degree makes its appeal on the basis of automatic heat. It is only recently that there have been indications that the advance of oil heat has been checked.

Statistics compiled by the leading trade magazine of the fuel oil industry show that in the New England and Middle Atlantic States at the end of the year 1936, there were 531,770 domestic oil burners in operation, compared with but 80,000 ten years before. In 1936, these burners consumed oil equivalent to 13,551,000 tons of anthracite. When we add to this the consumption of range oil, which has largely displaced anthracite ranges, particularly in New England, we reach a total anthracite equivalent of 18,668,000 tons a year, which is more than 40% of the anthracite tonnage in these markets.

Some of this consumption formerly belonged to anthracite, some represents new installations where anthracite has never been used, and a large part of it may conceivably be captured by anthracite at some future date if the burdens of the Industry are lightened by a cooperative government.

A tax on fuel oil, urgently needed for reasons unrelated to the Anthracite Industry, will also help this Industry. Only last month (January 24th) the Governors, or their representatives from ten oil producing states, met in Hot Springs, Arkansas, to consider the problem of future oil supplies. One governor said that present reserves would be sufficient only until 1941, and another predicted that unless new fields were discovered gasoline for motor fuel would soon cost 50 cents a gallon. The growth of the automobile industry, the development of the Diesel engine which uses a heavy grade of oil, and finally the need of conserving a large oil supply for the needs of the United States Navy, have all been cited by impartial persons as reasons why this irreplaceable resource should not be used for heating. At present, there is a strong opinion in Washington in favor of a tax on fuel oil, not only as a revenue measure, but also in the interest of conservation.

Natural gas and manufactured gas, and in some places a combination of the two, have also made a strong bid for the domestic heating market, particularly in the middle west, western New York State, Canada and even in Pennsylvania.

At one time by-product coke was consumed almost exclusively in the steel industry, but as this market fluctuated with industrial activity, the manufacturers made a strong bid for the domestic market. Being largely a by-product of gas manufacture it can be priced at whatever figure will move it, and in some places anthracite has no stronger competitor. Estimates of the United States Bureau of Mines show that from 9,500,000 to 10,000,000 tons of coke are used annually for domestic purposes. By-product coke has also displaced a large market for anthracite formerly used in the manufacture of water gas, to the annual amount of approximately 2,000,000 tons.

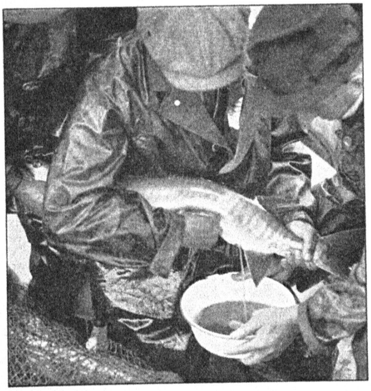
The Anthracite Industry was "zoned out" of the mid-western market by a Federal Fuel Administration during the World War in an effort to conserve the country's transportation facilities. Thus through no fault of the producers there was lost

(Continued on page 65)

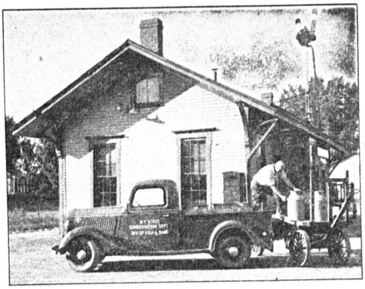
Hatching and Planting Half A Billion Fish

THOUSANDS of New York State's third of a million licensed fishermen will unlimber rods, reels, and lines on lakes and streams this week-end, for today the season opens on lake trout and whitefish, which may be taken legally until September 10. Tomorrow a far greater number will try their hands at catching brook, brown, and rainbow trout, which will be in season until August 31. On May 10, the pike perch season opens until March 1, and from July 1 until December 1 maskalonge may be taken.

While it is impossible to state accurately how many fish are caught annually, fishermen are asked to report their last year's take when applying for new licenses, the total reported for the 1935-36 season having been 2,412,855 fish. Assuming this represents 40 per cent of the actual take, over 6,000,000 fish are caught in the State annually. Unless some provisions were made for restocking, the open seasons would have to be shortened or fishing would have to be entirely prohibited, to avoid depleting the supply of fish to the point of extinction.



STRIPPING A MASKALONGE



SHIPPING FISH FROM CROWN POINT STATION

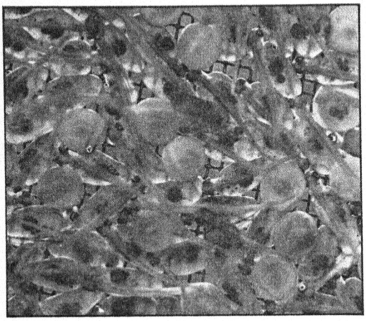
New York State has 750 square miles of lakes and ponds and 60,000 miles of streams, 23,000 of which may be classed as trout waters, practically all of which are stocked with fish propagated at 15 State hatcheries and five rearing stations. Those near the Delaware and Hudson lines are at Cambridge, Crown Point, Lake George, Lily Lake (near Binghamton), Saranac Lake, and Warrensburg.

Last year a total of 449,209,836 fish were planted in the State, the area served by our lines getting its proportionate share. This total included: brook trout 3,802,830, brown trout 2,280,764, lake trout 1,285,063, rainbow trout 713,128, maskalonge 4,247,000, whitefish 9,614,500, and pike perch 399,884,000.

Lake trout eggs for hatching are generally taken in November from breeders caught in trap nets in Raquette Lake, Saranac Lake, Lake George, and Keuka Lake. A trap net is cube-shaped, approximately six feet long on all sides, secured to the shore by a 100-foot leader, and having wings extending shoreward from the net opening to guide the fish into the trap. In Raquette Lake, where most of the eggs are taken, about 200 trout, averaging three pounds apiece, are taken from each net daily, each female producing about 1,500 eggs, which run approximately 7,200 to the quart. To fill the annual requirement of 1,500,000 eggs, 900 females and as many males must be "stripped," necessitating the catching of about 2,500 fish in all.

Arriving at the dock, the stripper grasps the female with his left hand around the tail and gently presses on the abdomen, moving the thumb backward from the pectoral fins toward the vent. As he does so the eggs flow out into a pan and the operation is repeated until all eggs have been removed.

Anyone watching the "stripping" operation might think it would be harmful and liable to



TROUT LEAVING SHELLS—SLIGHTLY ENLARGED

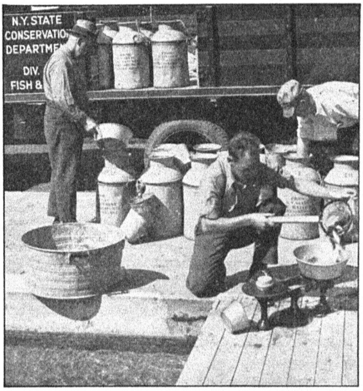
cause the death of the fish. However, this is not the case. Breeders in hatcheries have been stripped for many years without loss and with no apparent harmful effects on the fish.

As soon as a female has been "stripped" it is released and the process is repeated with a male, except that pressure is applied nearer the vent and not over the entire abdominal region. Each male produces from a teaspoonful to a tablespoonful of milt, the milky-white substance which fertilizes the eggs. When a pint or quart of eggs and milt have accumulated in the pan, they are stirred to bring the milt into contact with all the eggs, fertilization usually taking place within 15 seconds. Two quarts of water are then added to the pan and it is allowed to set from 20 to 30 minutes, during which time the eggs absorb water, harden, and lose their stickiness. Several rinsings in fresh water remove all excess milt and six quarts of eggs are placed in a 10-gallon can for the trip to the hatchery. Trout eggs are spherical-shaped and average 23/100-inch in diameter.

At the hatchery 50,000 eggs are placed on a wire screen tray, 21 inches long, 14 inches wide, and 4 inches deep, immersed in gently running water. Dead or unfertile eggs, which eventually turn white and become opaque, are removed daily, their number being deducted from the total listed for each tray.

The incubation period of fish eggs is divided into three parts, each requiring approximately the same length of time. The first extends from the time hatching begins until the eyes are visible through the transparent egg shell; the second runs from the "eyed" stage until the fish emerges. Fish are born with the "yolk sac" attached to their abdomens and it is from this sac that they secure nourishment through the third period of their development. As the contents of the sac are absorbed it gradually diminishes in size until it disappears. The incubation period is then complete and the fish rises to the surface of the water in search of food.

The length of the hatching period is largely governed by the water temperature. At a temperature of from 48 to 50° F., about 25 days are required for the eye to become visible, 25 days later the fish leaves the shell, and in 25 more days the yolk sac is absorbed. A one-degree drop in temperature generally will lengthen each period five days; a one-degree rise will shorten each five days. Although these periods vary somewhat, these figures represent a good average.



WEIGHING AND COUNTING FISH

While the yolk sac is still being absorbed the trout remain near the bottom of the trough. Their bodies are transparent and it is possible to watch their hearts beating with the aid of a magnifying glass. At the end of the third stage the trout rise to the top of the trays and are removed to rearing troughs. Leaving the egg, trout average ½-inch long, attaining ¾-inch by the time the yolk sac is absorbed.

Trout "fry," as they are called at this stage, are fed an all-meat diet, consisting exclusively of finely ground clear beef liver. This meat is ground five times through a grinder with a plate having 1/16-inch holes to completely mash it. It is then put in a dipper with fine holes in the bottom which is moved back and forth in the trough, the tiny particles of meat floating out to feed the fish.

They remain on a meat diet until they are between 2 and 2½ inches long. From then until they are planted in lakes and streams, the feeding formula is 50 per cent liver and hog melts, and 50 per cent dry meals, including powdered skim milk, dry buttermilk, fish-, cottonseed-, and salmon-meal.

The Warrensburg unit hatches 1,500,000 brook and 100,000 rainbow trout annually. When the trout have attained an average length of three inches, distribution begins.

Fish are distributed according to the recommendations of the New York State Bureau of Biological Survey, which has examined all lakes and streams in the 14 watersheds in the State, selecting those suitable for stocking, and stating the species, size, and number of fish recommended for planting per mile in each stream. The Bureau of Fish Culture, which operates the hatcheries, follows the findings of the Survey as closely as possible in planting fish. If, for example, enough trout are available to completely fill the quotas suggested for the entire state, streams are stocked with the number recommended. If, however, it has only 50 per cent of the total requirement, each stream will receive one-half its quota.

Trout under three inches long are usually transported in 10-gallon cans, each carrying one pound of fish in five gallons of water. Larger sizes are forwarded in metal oxygen tanks, 8 feet long, 4 feet wide, and 2½ feet deep, divided into five compartments. Such a tank holds 8,000 3-inch trout or 3,000 of the 6-inch size.

Water temperature is as important in transporting fish as it is in hatching them: normally, with every 10-degree drop in water temperature the quantity of oxygen required is cut in half. Experience indicates that the ideal temperature is between 40 and 44 degrees F.

If the stream to be stocked is not accessible by road, the trout are transferred to 10-gallon pack cans to be carried into the woods on men's backs. Arriving at the stream, the trout are released in rapids or fast water sections with the thought that they will better distribute themselves. If deposited in slack water they would tend to remain in that spot.

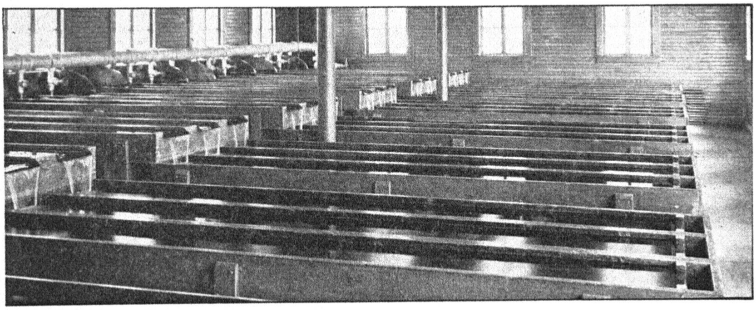
For transporting fish over long distances the Conservation Department uses its fish car *Adirondack*, an all-steel passenger train car, equipped with 38 galvaneel oxygen tanks 4 feet long, 18 inches wide, and 28 inches deep. Each tank will hold approximately 20 pounds of fish or about 67,000 three-inch trout.

New York State streams are stocked with trout ranging in length from three to 20 inches, although the principal sizes distributed are 3, 6, and 7 inches.

The procedure in rearing pike perch differs in many respects from that followed with trout. Pike perch are raised at Crown Point and Oneida. Eggs for Crown Point are taken from fish in Lake Champlain, at South Bay, just above Whitehall, within sight of Champlain Division trains. Unlike trout, which spawn in the fall, pike perch are stripped in the spring, usually in April or early May.

Two men work simultaneously, one handling the females, the other the males. Eggs and milt are collected in 20-quart wooden bowls, the stripping continuing until about 10 quarts accumulate. Two to three quarts of water are then added and the eggs and milt are stirred with a turkey feather or some similarly soft object until they swell, harden,

(Continued on page 63)



TROUT REARING TROUGHS IN WARRENSBURG HATCHERY

The

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BULLETIN

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Vol. 18 April 1, 1938 **No. 4**

Do your best and rejoice with him who can do better.

—EMERSON.

Saving Money

SAVING money is the simplest thing in the world.

It consists in spending less than you get.

If you make ten dollars a week and spend eleven, you are on the way to the dump heap.

If you make ten dollars and spend nine, you are on the way to success.

The sensible person makes it an iron rule to spend less than he makes.

It may be difficult; he may have to suffer, and go cold and hungry, but out of every ten dollars, he saves one, at least, though the heavens fall.

One reason any one does not get ahead in the world is because he thinks his present needs are more important than to save a portion of what he has.

There is only one name for such a person—he is a fool.

If a man cannot manage his personal affairs, how can he expect to manage the affairs of others—a corporation for instance?—*Exchange.*

Recovery

EMPLOYMENT in Canada, exclusive of agricultural workers, has risen to a point 5.2 per cent above the 1929 level, while the corresponding figure for the United States is 6 per cent below that level, according to an analysis by the National Industrial Conference Board.

Hourly wages have not risen to the same extent in Canada as in the United States, but living costs in Canada are 15.6 per cent lower than in 1929 and in this country only 11.5 per cent lower.

Industrial production in Canada dropped to a lower level during the depression than it did in the United States. Recovery, however, raised Canadian production to a level in November, 1937, 4.8 per cent above that in 1929, while in the United States recovery was interrupted by a decline which brought the production index in November, 1937, to a point 24.4 per cent below 1929.

Per capita national debt in Canada at the end of the fiscal year 1937 showed an increase of 22.8 per cent compared with 1929. In the case of the United States there was an increase of 102.3 per cent.

The Conference Board's comparison of depression and recovery trends in the two countries shows the following conditions:

PER CENT ABOVE OR BELOW THE 1929 LEVEL

	At the Low Point of the Depression*		In December, 1937	
	Canada	United States	Canada	United States
Industrial Production	—51.4	—49.0	+ 4.8**	— 24.4**
Employment Exclusive of Agriculture	—34.9	—29.1	+ 5.2**	— 6.0**
Wholesale Prices	—33.2	—36.7	—13.5	— 14.3
Cost of Living	—22.9	—27.7	—15.6	— 11.5
Hourly Wages	—13.1	—17.7	+ 0.8***	+ 15.7***
Freight Carloadings	—51.9	—52.9	—30.6	— 45.5
Debits to Individual Accounts	—51.3	—69.9	—24.8**	— 60.2**
Per Capita National Debt	— 5.6	— 5.6	+22.8****	+102.3****

*The low point represents the three months showing the lowest average during the period, except in the case of hourly wages and per capita national debt, where the annual figures are used as the basis of comparison.

**November, 1937. ***Average, 1937. ****Fiscal year 1937.

Hatching and Planting Fish

(Continued from page 61)

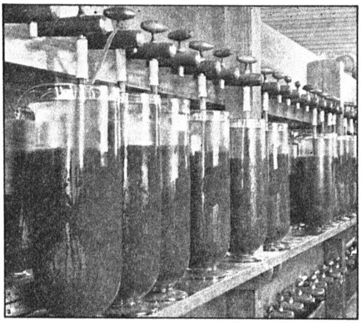
and separate, a process which usually takes from two to three hours.

Pike perch eggs are about 1/13-inch in diameter and average 150,000 to the quart, about 75,000 being taken from each female. At South Bay it takes about five hours to collect 100 quarts of eggs, 10 quarts being placed in a 10-gallon can for the 35-mile run to the Crown Point hatchery.

Arriving at the hatchery, three quarts or 450,000 eggs are placed in a 1½-gallon glass jar and, at the end of 24 hours, another quart is added to each jar, making a total of 600,000 eggs per jar. A constant flow of approximately two gallons of water a minute is maintained through a pipe ending near the bottom of the jar, the overflow running off through a spout at the top. This flow of water keeps the eggs moving slowly at all times, preventing those at the bottom from being smothered. Each day the dead and unfertilized eggs are siphoned off, counted and discarded.

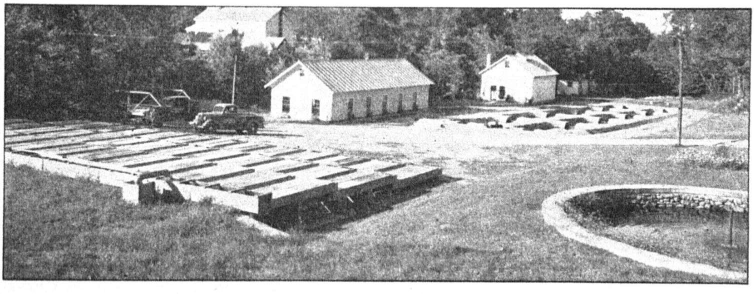
The hatching period of pike perch varies between 15 and 30 days, although the best results are obtained if the eggs hatch in about 21 days. As soon as a fish hatches it rises to the top of the jar and floats off with the overflow, passing along a series of troughs ending in large, deep, holding troughs. The tiny pike perch, which average only ¼-inch long, remain at the bottom of the holding troughs for six or seven days while the yolk sac is being absorbed. They then come to the surface in search of food.

As no suitable artificial food for pike perch has ever been discovered, and due to their cannibalistic habits, they must be planted within five days after the yolk sac disappears. Removed from the trough with a fine mesh net or siphon, the fry are shipped out in cans each containing 50,000. Pike perch are planted in waters not inhabited by trout, preferably lakes and ponds. About 75 per cent of those raised at Crown Point are released in Lake Champlain; the remainder are distributed in lakes and ponds between the Canadian border and New York City.

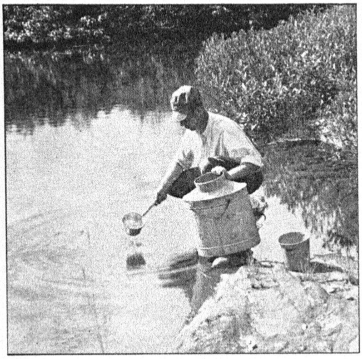


PIKE PERCH EGGS IN HATCHING JARS

All whitefish artificially propagated by the State are hatched at Crown Point and Adirondack hatchery, at Saranac Inn, from eggs taken from Saranac Lake, the Fulton chain of lakes, Lake Clear, and Raquette Lake in November and December. Whitefish eggs average ⅛-inch in diameter, and run 42,000 to the quart. They follow the same hatching procedure as do pike perch eggs, except that the incubation period is much longer, averaging 120 days. As soon as the eggs start to hatch they are shipped out for planting, chiefly in the Adiron-



CROWN POINT HATCHERY SHOWING OUTDOOR REARING TROUGHS AND POOLS



PLANTING FISH IN STREAM

dacks: Lake Placid, Chazy Lake, Upper and Lower Saranac Lakes, Lake Clear, Mirror Lake, and others.

Maskalonge eggs from Chatauqua Lake are handled at the Chatauqua Hatchery. These eggs average 1/11-inch in diameter, running 55,000 to the quart. Taken from the fish in the early spring, as soon as the ice goes out, they are hatched in jars, 15 days usually elapsing before they emerge from the shells with 15 more days required for the yolk sac to absorb. All maskalonge raised are planted in Chatauqua Lake and the St. Lawrence River.

The Conservation Department and fish and game clubs share the work of distributing hatchery fish. For distribution purposes each county is divided into zones. Applications in the names of various clubs are filed annually with the Conservation Department for a certain number of fish of a given size and species for planting in their zones. After the Biological Survey's recommendations and the number of fish available are considered, each club is allotted a certain quota of fish, which are shipped direct from the hatcheries. Zones not included in the territory of any club or individual are planted, if possible, by Conservation Department employes.

Fishermen who wish to learn the species, size and number of fish planted in their favorite waters may obtain this information from a pamphlet entitled "Fish Distribution," published annually, a copy of which may be obtained for ten cents from the Conservation Department, Albany, N. Y.

Is New York State's fish planting program keeping abreast of the annual take by fishermen? Unquestionably it is, for the reported take is increasing annually. Should the take exceed the number propagated naturally plus plantings the reported take would quickly reflect this fact in a reduced total. As long as it continues to receive its share of fish from New York State hatcheries, and nature does its part, the territory served by The Delaware and Hudson will be a fisherman's paradise.

Binghamton Rotarians Observe Railroad Day

RAILROAD Day was observed by the Binghamton Rotary Club, Thursday, February 17, when its regular weekly meeting was given over to a discussion of the carriers' present plight. Seventy guest railroad officials were among the 300 who attended.

The principal speaker was L. W. Horning, Regional Director of Research of the Association of American Railroads, who said that the average American has become so accustomed to the railroads that he takes little or no interest in the struggle of the "iron horse" to keep on its feet, financially speaking.

Mr. Horning declared that a national or state policy on railroads is sadly lacking. He pointed out that busses, trucks, airways and waterways operate in competition to the roads practically tax free, while rail companies bear a heavy portion of federal, state, county, and municipal taxes.

Railroads at present are earning 7½ times as much money for taxation purposes as for the people who operate them. Their New York State tax bill last year was $32,800,892.

He decried legislation pending to limit freight trains to 70 cars as one example of steps taken to deal further blows to the railroad industry. The 70-car bill is now under consideration in Congress.

In Broome County last year, he said, 1,301 railroad employes received a total salary of $2,144,824, and the railroads are assessed substantial taxes in the county—as high as 85.27 per cent of the school tax in one Broome town. In four towns, railroads pay as high as one-fourth of the total tax income.

"Every time your watch ticks," he told the Rotarians, "railroads throughout the country pay $10.37 in taxes."

Agriculture and transportation industries, he said, are the backbone of the nation's financial and industrial structure. Legislation such as the 70-car bill has a demoralizing effect on that structure, he added.

"Let's apply the Golden Rule to the railroads," he urged, "just as we apply it to our other industries."

The nation's railroads use more than 70,000 items of supply yearly, ranging from rouge to barges and tugboats. Last year, railroads paid out $215,000,000 for coal, $7,000,000 for gasoline, $279,000,000 for steel, iron and tools, $18,000,000 for crude oil, $27,000,000 for glass, drugs and paint, $48,000,000 for air-conditioning equipment, and much more for other materials.

In 1937, railroads in this country purchased materials in 12,000 localities, including ten in Broome County. As an example of the employment given by that industry throughout the country, he pointed out that construction of a single locomotive gives work equivalent to employment for 50 men for one year.

Social Security Act

(Continued from page 54)

effect a diversion. The Secretary of the Treasury, or his duly appointed agent, would have no authority to effect any sale or purchase on account of the fund except on the advice of the board or commission.

(f) and (g) These requirements would effectively guarantee to employers and employes that the monies they paid in under the Act would be devoted to the purposes justifying the requirement of such payments. They would also result in reducing the burden of taxation necessary to maintain the pay-as-we-go administration of the plan as a whole.

In the setting up of a fund of several billions of dollars, constituted as outlined above, those who call for a sharing of wealth should find another advantage. A fund so constituted would differ in no respect from the assets constituting any great fortune, and every participant in the benefits established under a social security act providing for the maintenance of such a fund would be sharing such wealth. Nor can those who object to such share-the-wealth propositions as have been heretofore advanced object in such connection, for the fund so created and maintained would involve neither directly nor indirectly the confiscation or expropriation of the capital of a single person or corporation.

Any apprehensions that the creation and maintenance of a Fund of the size and character suggested might result either in bleeding the market, that is, taking out of active trading too large an amount of active securities, or in causing undue fluctuations in the prices of particular securities, should be dispelled in the light of the following facts and figures.

According to the December Bulletin of the New York Stock Exchange, the total number of shares listed as of December 1, 1937, was 1,408,078,066, having a market value, after the tremendous decline of the previous ten weeks, of $40,716,032,190. In addition, the market value of the listed bonds as of the same date was $42,109,154,661, giving a total market value of all securities listed on that exchange alone of $82,825,186,770.

There seem to be no available figures on the total market value of the securities listed on the New York Curb, but it must run into many additional billions. If there be further taken into account the total market value of securities listed on all other exchanges and the total market value of unlisted securities traded in in the "over the counter" market, it would hardly seem possible that the creation and maintenance of such a Fund as suggested, even if it should amount to as much as ten billions, could bleed the market.

Nor need the purchases and sales of securities for account of the Fund cause any serious fluctuations in the prices of particular securities. Acquisitions or sales of large blocks of particular securities could and should be handled in a series of moderate transactions, no one of which need have a disturbing effect.

If it should be impossible to secure the amendment of the present Act as suggested, and Congress should persist in requiring that the so-called fund shall consist wholly of Government bonds, whether such so-called fund be large or small, there still remains the possibility of avoiding a heavy increase in the national debt by inserting in the Act a provision to the effect that no bond or bonds can be deposited in the so-called fund except upon certification by the Secretary of the Treasury that the bond or bonds in question were purchased in the open market, or, if the bond or bonds offered for deposit be new obligations, that there have been retired a like par amount of bonds previously issued and outstanding.

The Anthracite Problem

(Continued from page 58)

to them much of the profitable trade they had built up around Chicago, Milwaukee, and other points on the Great Lakes. Although today these markets are largely supplied by bituminous coals, coke and gas, they have not been abandoned by the anthracite producers and the battle of fuels still goes on in that part of the country.

What is the matter with anthracite?

To an important degree, the federal government is not giving proper tariff protection in order to provide employment for the miners.

In 1936, the last year for which complete figures are available, more than 631,000 tons of foreign anthracite entered the United States, 452,194 tons being from Soviet Russia and practically all the rest from the Kingdom of Great Britain. A year ago British coal came in duty free but Russian coal paid a duty of $2.00 a ton. Since last August however, when the State Department negotiated a trade agreement with Russia, all this anthracite enters this country free of duty.

When the Russian treaty was made, the Soviet Government agreed not to ship to this country more than 400,000 tons of anthracite in any one year, although this was not made a part of the treaty. Russian coal comes to this country by way of the Black Sea and the Mediterranean and is sold only in New England. There is no way of distinguishing it as an imported product, as must be done with manufactured articles, and many persons are today burning Russian anthracite without knowledge of its origin. Producers and union miners have united in protesting the admission of Russian anthracite to this country free of duty.

Coal from the United Kingdom also enters the United States, but the amount has been decreasing steadily for a number of years.

What is the matter with anthracite?

The State Department has not yet afforded the Industry the help which it seeks in removing the Canadian duty. Canada has long been one of the important markets for Pennsylvania Anthracite and at one time it consumed almost 5,000,000 tons annually. In 1937 it took approximately 2,000,000 tons which was more than it had bought since 1931. Canada produces no anthracite of her own. A large part of her supply still comes from the United States, but it must compete in that market with coal from the United Kingdom, Russia, Germany and Indo China; and last fall a small shipment of Moroccan anthracite made its appearance.

Since 1932 Pennsylvania anthracite entering Canada has had to pay a duty of 50 cents a ton and an excise tax of 3 per cent, making a total of about 72 cents a ton. Strong representations have been made to the State Department by the anthracite operators, the United Mine Workers and members of Congress from Pennsylvania that this barrier should be removed, and the matter is under consideration in Washington. Even the Canadian Retail Coal Association last year adopted a resolution to the effect that the duty on U. S. Anthracite should be removed.

What is the matter with anthracite.

It is partly taxes and unwarranted burdens forced upon it when it was already staggering under too heavy a load.

The total tax bill of about $14,000,000 amounts to about 30c. a ton and over $12,000,000 of the total goes to local governments.

Notwithstanding the critical condition of the Industry and the dependence of the Commonwealth and Municipalities upon it, the State Legislature has enacted a new Workmen's Compensation Law, embracing occupational diseases, and affecting anthracite in no way comparable with any other Industry, which will eventually impose another $5,000,000 burden on the Industry, and add another 10c. a ton to the cost of a product which is already being driven out by competing fuels. Would not the miners prefer to be employed under the old conditions of Workmen's Compensation rather than to lose all employment through the imposition of prohibitive burdens imposed under the guise of social reform?

Because of this desperate situation, many of the leading companies of this Industry, having the courage to act, exercised their right of election under the Act to reject the new provisions of this law.

What is the matter with anthracite?

It needs law enforcement to protect it from stealing and from competition through the sale of its stolen product. The Industry is a big taxpayer, but it does not receive elementary property protection, as against organized theft of its product by over 10,000 people, many of whom had no former connection with the Industry.

The Anthracite Industry has many problems that parallel the problems of other industries—markets, finances, wage rates, tariffs—but this plague stands unique in American history.

So well has this collapse of Government been publicized during the last three years, in many thousands of columns, that it is not necessary to review it in detail. But it still stands as a challenge to the Commonwealth of Pennsylvania and an indictment of its administrative ability. "Indictment" is not too strong a word, for four of her sister states have passed special legislation designed to protect their markets against this polluted stream that still flows unchecked within the State where it originates, and then seeks its outlet across the borders of the Commonwealth.

Stolen coal, at first consumed only within the mining region, began to be trucked into outlying markets as early as 1931, so that this amazing business is now entering its eighth year. By September, 1932, law enforcement by the local courts and police authorities had broken down completely, so far as protection of mine properties was concerned, and a group of operators appealed to the then-Governor of the Commonwealth for some action against the raiders. Their appeal was denied on the grounds of economy. With the change of administration, efforts were renewed to have the fundamental principles of orderly government enforced, but with no better success, and this deadlock has continued until today. After eight years of a state of anarchy, the Government seated in this City (Harrisburg) is still irresolute and impotent.

Much has been said about possible bloodshed in the bootleg coal region, but if in its early stages the commonly accepted laws against thievery had been enforced no violence would have been necessary. The people of the coal region are by tradition conservative and law-abiding. They have a smaller percentage of communists and radicals than most industrial communities. Only after repeated official encouragement of their illegal industry, and open tolerance of their public organized defiance of government, did they assume their present role and create what the Attorney-General called a state of anarchy.

The appetite has been whetted with what it has been fed upon by those in high official positions.

The owners of the coal properties have shown forbearance and patience to a fault in a situation that has become charged with grave potentialities. They have seen their coal stolen, their markets raided, their properties wrecked, their steam shovels dynamited; but even on their own properties, without the moral restraint and prestige of the State behind them, they have retreated rather than evoke violence.

How much coal is being stolen annually? That question has been answered all the way from two million tons to ten million tons. A survey by the Anthracite Institute in 1934 estimated 3,000,000 tons. A year later another check of 22,834 coal trucks leaving the region in one week, found that more than 60% of the trucked coal had been stolen. On this basis, it was estimated that the stream of illegal traffic had swollen to 3,600,000 tons a year. The Anthracite Coal Industry Commission which made a check last summer estimated that the stolen coal traffic then amounted to 2,400,000 tons annually and that at its peak it had amounted to 2,900,000 tons.

These lower estimates present a picture where consumers are paying from $20,000,000 to $30,000,000 a year for stolen coal.

No other business of comparable size in the United States is so little supervised by municipal, state or Federal agencies. Statistics on volume, costs, accident rates, etc. are available for hundreds of industries big and little, but not this one. No mine inspectors are on duty at these operations, no statisticians are keeping track of their tonnage, no vital statistics count the killed and injured.

Workers in other industries draw compensation payments when they are injured and their dependents are protected in the cases of fatal accidents. They may look forward to some form of social security when they are too old to earn. But the eyes of the law are closed to this parasite, that pays no taxes and no insurance premiums, observes no labor standards, affords no workers protection, but competes with a legitimate industry where these social obligations are respected.

Bootlegging has been called the desperate resort of unemployed miners, but let it be said to the credit of those unfortunate men that only a small fraction, perhaps one-twelfth of the unemployed miners, are now engaged in this form of outlawry, and the number probably never exceeded one-tenth. The Anthracite Coal Industry Commission in its recent report said: "Of the 8,300 men working in bootleg holes and breakers over 5,000, or an average of 60 per cent, have formerly worked in or around legal mines." Yet today there are probably 50,000 unemployed.

The greatest harm to the Industry is not the loss of the stolen coal, great as that is, but the demoralization of the markets where anthracite at best meets the keenest competition of other fuels. The good name of anthracite is being defamed by an inferior product. All legitimate anthracite is prepared by one or another of the modern processes that separate the good coal from the impurities on the basis of their specific gravities, a noteworthy advance over the old system of hand cleaning. But bootleg coal goes through no such process and in consequence is often inferior in quality. This fact has resulted in a loss of customers, some of whom did not know that the low grade anthracite which they had difficulty in burning was stolen coal. Apologists for the bootleggers have claimed they have found new customers for anthracite, but the facts are that the combination of poorly prepared and short weight bootleg coal has cost the industry many customers.

The effect on the dealer is hurtful. The legitimate fuel dealer has an investment, often of considerable sums, in yards, trucks, buildings, and other equipment. The beginning of the heating season finds his yard full of coal in which he has an additional investment. This is an insurance against hardship to his community when sleet or heavy snows hamper the movement of coal from the mines. The dealer must pay fair wages, a variety of taxes and license fees, and in other ways support his community. Therefore it can be seen how unfair it is to allow an irresponsible trucker to enter his community with a load of stolen coal and undersell him.

Nor will all the damages be written off when the last bootleg hole has been abandoned and the last ton of stolen coal taken to market. Millions of tons of the best anthracite in the region have been made unrecoverable by the hit-or-miss methods of bootleg mining, and the lives of legitimate miners a decade or two hence may be jeopardized by this illicit mining. Legitimate mine operators are required to keep on file with the Department of Mines in Harrisburg a current chart of all their tunnels and workings in every vein, so that future operations can be safely planned. But though some bootleg holes have been driven to a depth of more than 300 feet and now stand abandoned and full of water, no chart of them is in existence, and they will remain a threat and a menace to every man, who, in the future, digs coal in the veins beneath them.

Some cognizance has been taken of this situation in recent months where bootleg operations, endangering legitimate operations, have been stopped by injunction proceedings, and where the companies had said they would be compelled to abandon the legitimate mining if the bootleggers were permitted to continue above them. But more than two thousand gaping holes now remain to jeopardize future mining.

The Anthracite Institute's story two years ago showed that approximately two-thirds of this stolen coal was consumed in Pennsylvania and one-third in other states. The answer of four of these other states to this situation has been clear and positive. During the last twelve months Maryland, New Jersey, New York and Connecticut, as well as the City of New York, have all passed special legislation to protect their retail fuel trade against stolen coal from Pennsylvania, but Pennsylvania, which by its impotency, has brought this plague to other states, leaves the dealer, producer and the railroad without defense.

Mine labor in the anthracite region is one hundred per cent unionized in legitimate operations. If any company attempted to mine coal with labor that did not belong to the union, or if it failed to withhold part of the miners' wages to be paid the union treasurer as dues, or failed in other respects to live up to the present agreement between the union and the producers, it would find itself the central figure in a bitter labor war. But the bootlegger and the proprietor of a bootleg coal breaker are overlooked entirely by this organization that is so meticulous in its dealings with legitimate employers. All the ground that labor has gained in the last fifty years is in jeopardy while this condition continues.

Has no plan been offered to end this amazing business? Yes, there have been plans, studies and investigations, but the stolen coal continues to roll over the highways north, east and south.

In December, 1936, the Governor and the principal members of his cabinet, made a three-day tour of the affected area. At the conclusion of the trip in Shamokin, the Governor said the situation was "intolerable, and must be ended." The following month, with the approval of the legislature, he appointed a five-man commission, known as the Anthracite Coal Industry Commission, for the expenses of which the legislature appropriated $50,000.

Three reports, two of them preliminary and one final, were made by this Commission on May 19, 1937, and showed the Commission to be hopelessly divided. Two of the Commissioners recommended a tax of five cents per ton on anthracite, the money to be used to operate mines where bootleggers would be given employment. Another Commissioner favored state operation but opposed the tonnage tax. Two other Commissioners opposed any form of state operation and recommended relief work for unemployed miners, with stoppage by the state of bootlegging operations. They thereupon resigned. No Commissioner recommended the simple formula of stopping stealing.

On September 27th, last, the Governor held a large conference in the Legislative Chamber in Harrisburg, at which he suggested that some plan could be worked out whereby the bootleggers would be allowed to mine coal on certain tracts of land. Acting on this suggestion, the operators recently laid before the Commission a program whereby bootleg operations would be legitimatized, on the understanding that all bootleg coal be delivered to legitimate preparation plants, and that the State would prevent the opening of new bootleg holes as the present ones were exhausted. This would seem to offer a moderate program for gradual elimination of the stolen coal evil.

Still no action has been taken. The blot on the escutcheon of the Commonwealth remains. The elementary principles of government and the decalogue are dethroned. Law is degraded. The State must make up its mind whether to enforce law or pay tribute.

It is obvious that the mere assumption of control by the state or Federal government will not of itself eliminate bootlegging. If it is stopped, it will have to be by summary action of some kind, regardless of whether title to the coal lands rests with private companies or some governmental body.

Let us turn now to the legislative proposals for the rehabilitation of the Industry. They have been varied and in most instances radical, but it is difficult to see how any of them would result in meeting the major problem of the Industry, which is to regain markets and sell more of its product.

Certain members of the Anthracite Coal Commission recommended that the State, by condemnation, purchase, or lease, acquire coal lands, particularly in the regions where the bootleggers operated, and enter upon the active production of anthracite in competition with the privately owned mines, which already operate only part-time, because of inadequate markets. A plan of this general character was also advanced by the Attorney-General of the State. Such a program, in addition to putting government into business in competition with private industry, and dissipating public funds by subsidized operations, would have favored the bootlegger as compared with the great majority of law-abiding miners now unemployed.

Another proposal was for the State to buy up all coal reserves not workable within the next twenty-five years, through the issuance of fifty year three per cent bonds, which at least would have the advantage of relieving the operators from the burden of paying taxes on these lands. It would cost the taxpayers a pretty sum.

The Governor, in one of his recent conferences, urged the establishment of a State Commission to control production, allocate tonnage, fix mine prices and direct merchandising. Inasmuch as the real problem of the Industry is the sale and distribution of its products in states beyond the borders of Pennsylvania, the anthracite producers were unanimous that legislation of this kind, if it were to be enacted, should emanate from the Federal Government. The Governor also agreed that federal control was preferable, if attainable. There is also the danger that any such state regulation emanating from Pennsylvania, would create hostility to the use of anthracite in other states, just as did the unlamented tonnage tax, and particularly if the program was to follow one of the objectives of the Coal Commission in reducing the number of retailers in other states by eliminating the great majority of them from the business. Drastic movements of this kind will be less resented in other states like Massachusetts, if they emanate from the Federal Government, which is as much the government of Massachusetts as it is the government of Pennsylvania.

In its latest report, the Anthracite Coal Industry Commission, with the approval of the Governor, recommended the creation of a Public Service Commission, to regulate costs and prices at the mine, to establish production quotas, to establish cooperative non-profit marketing organizations, and to represent the Industry in freight rate negotiations. It does not differ radically from the approach already described. One of the objectives, which the Commission had in mind in this recommendation, was to force the reopening of closed collieries in areas where unemployment had been accompanied by bootlegging. Its powers would extend, therefore, beyond those heretofore known in a Public Service Commission, and would include the objective of forcing operations in any community where unemployment existed.

The latest recommendation from the Governor is an echo of a plan which he apparently advanced in June 1937, whereby the Federal Government should purchase all the anthracite deposits, leaving surface structures in possession of the operators, and then permit private operations on the payment of royalties to the Government.

The only plan which has had both the backing of the United Mine Workers, and a substantial percentage of the Industry, has been one to create a Federal Commission similar to the National Bituminous Commission, to fix minimum mine prices —and possibly maximum ones—prescribe marketing rules and prohibit unfair methods of competition. A bill of this nature, patterned after the Bituminous Act, was jointly introduced in the two Houses of Congress July 15, 1937, and is known as the Guffey Boland Act.

None of these proposals seems to offer any promise of immediate accomplishment in increasing the sales of anthracite. A number of them, and particularly the Federal Act, would make it possible to end the excessive competition now existing within the Industry, thereby stabilizing prices, and would, therefore, tend to halt the onward progress of bankruptcy in the Industry which is the most immediate threat. Distribution could also be regimented under such federal control and a united front could be maintained in the contest with other fuels.

The tragic part of this picture is the complete confusion and lack of direction which characterizes the situation after years of study and the expenditure of large sums of taxpayers' money for investigation. The principle outlines of the problem are elementary. The direction of constructive action is obvious. The public, and public officials, are being misled by radicals and visionaries, who wish to try out their theories of radical experimentation. The real facts they will not emphasize. The homely practical truths of common sense are unspoken. They are still feeding the public outmoded charges of monopoly and promises of lower consumer prices, when monopoly is nothing but a political phantom, and lower prices are not economically practicable under any condition now in sight. The net result of investigation and deliberation, as a prelude to official action, is greater confusion, greater misunderstanding *and* confirmed and continued inaction.

What then can the Commonwealth of Pennsylvania do for anthracite?

1. In return for the enormous sums which the

Industry pays for the support of government and law, the Commonwealth can accord to this Industry that same degree of law protection which it extends to other people and other industries. The duty of stopping robbery rests with the State and no amount of talking can transfer that duty to the anthracite operators.

2. It can reduce the tax burdens of the Industry and influence local communities to economize expenditures.

3. It can stop maligning the Industry and accusing it of monopoly, when the entire Industry is near unto ruin from competition within and without.

4. It can cease accusing the Industry of not trying to sell its product, or not trying to develop markets, when it has been spending millions of dollars in promotional work, advertising, and special sales effort, and when the Coal Commission declares there are too many dealers, competing for the purchase and sale of anthracite.

5. It can tell the workers of the Industry that the new amendment of the Workmen's Compensation Law, imposing an added five million dollar charge annually on the Industry, is all wrong, and will prove a boomerang to them, resulting in a further loss of anthracite markets, and a further shrinkage in their earnings, if not complete loss of their jobs. And it can bring about the repeal of this insupportable legislation.

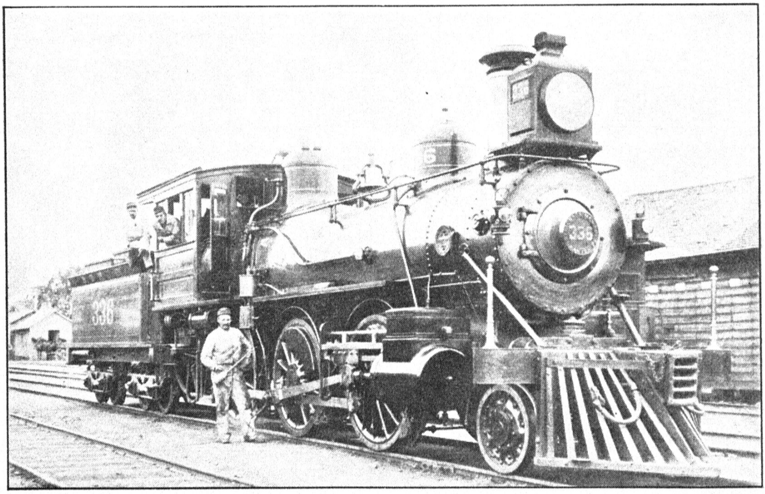
6. It can urge the United Mine Workers to study ways and means of reducing wage rates as a means of increasing workers' earnings.

7. It can continue its aid in supporting proceedings before the Interstate Commerce Commission for reduction in freight rates.

8. It can appeal to the Department of State of the Federal Government for the elimination of the Canadian duty, the institution of an adequate duty on imports, and can put the prestige of the Commonwealth behind a demand for a tax on fuel oil.

In these, and various other ways, the Commonwealth of Pennsylvania is in a position effectively to promote the recovery of this Industry for the benefit of the workers and the investors, as well as for the benefit of the State, and those cities and counties which look to this Industry as an important source of revenue.

Locomotive 336 at Oneonta in 1893



—*Photo Loaned by Retired Baggageman James Downs*

Clicks from the Rails

Lack of Dividends

does not concern the stockholders of the 30-mile long Arcade and Attica Railroad, in New York State, as long as it continues to serve its patrons. Although no dividend was earned or declared in 1937, the stockholders were satisfied with the general manager's report that "Physical assets are in the best shape in history and the cash assets are better than last year," and voted to continue operations. Business men and farmers living along the A. & A. R. R. purchased it with its five stations and equipment when it became involved in financial difficulties in 1917, and have operated it ever since.

Czar Nicholas I,

pleased with Russia's first railroad linking St. Petersburg and his summer home at Tsarskoye Selo, 100 years ago, ordered one built between St. Petersburg and Moscow. Intermediate cities tried to have the transportation ministry plan the line so as to serve their citizens. After several months' delay, the Czar lost his patience. Calling in his Minister of Transport and the engineers, he laid a ruler between the two cities on a map, drew a straight line between, and commanded that the railway be built along it. Accordingly the tracks were laid on a bee line, regardless of important intermediate cities.

Long Locomotive Run

records were probably shattered by the performance of two Russian engines which were run without change on 7,500-mile trips. As part of a celebration two special trains started simultaneously from Moscow and Vladivostok for Vladivostok and Moscow, respectively. En route they covered some of the world's most difficult railway mileage, including vast expanses of steppes and mountain territory. Engineers from all divisions of the 51,000-mile system competed for the honor of pulling these trains.

The First Train Order

sent by telegraph, dispatched by Charles Minot, general superintendent of the New York & Erie Railroad, from Turner (now Harriman) to Goshen, N. Y., in 1851, read: "Hold the train for further orders." The engineer of the train on which Mr. Minot was riding, given an order reading: "Run to Goshen regardless of opposing train," refused to proceed. Mr. Minot climbed aboard the engine and ran to Goshen. However, it was not for some time thereafter that telegraph train dispatching came into general use.

Illegal Train Riders

decreased to the vanishing point when special agents of the Southern Pacific offered them the choice of buying tickets or going to jail. In one month last year 30,490 illegal riders were removed from this line's trains, 382 of whom bought tickets at a total cost of $1,004.61. The Los Angeles Division led the railroad with 169 tickets sold to hobos.

A Woman Crane Operator,

Mrs. Annabelle Cooper, has been working in the locomotive shops at Battle Creek, Michigan, since 1918. When male labor was scarce during the World War, Mrs. Cooper applied for work in the railroad shops to help support her daughter. She has been on the job ever since and claims to be the only woman in the United States who operates an overhead railway crane.

22,000 Cottontail Rabbits

were recently shipped via Railway Express from Missouri and Oklahoma trappers to nearly 500 game clubs scattered throughout New York State for liberation. Although forwarded in boxes containing twelve animals each, every rabbit had to be placed in a separate compartment—otherwise they would kill each other while in transit.

The Oldest Railroader

in the world, "Soda Ash Johnny" Horan, who, at the age of 100, would have completed 83 years of continuous service with the Milwaukee Road April 17, died February 4. Hired as an apprentice April 17, 1855, Mr. Horan eventually became general foreman at Yankton, S. D., where he developed the system of treating water for locomotive boiler use from which his nickname was derived. For many years he specialized in controlling boiler feedwater conditions and the washing and care of boilers on the entire system. On his one-hundredth birthday, January 22, he was given a party at the Milwaukee shops, President Scandrett and many leading citizens of the city attending.

Honest Men

are not as rare as might be supposed, a Pullman conductor learned. Called from his home in New Orleans to make a run to Los Angeles, he borrowed a dollar from his wife, promising prompt repayment. Arriving at Los Angeles, he tied a string around the middle of a dollar bill, affixed a shipping tag to the other end and, against advice of friends, mailed the bill openly. It arrived safely, postal officials declaring that mailing money in plain sight probably was an added safety factor in delivery.

Named Trains

are becoming increasingly numerous in the United States, Canada, and Mexico. At present there are 711 named passenger trains in these three countries. There are ten Fast Mails, five Night Expresses, three Midnight Specials, six Owls, three Daylights, a Twilight Limited, and a Twilight Express. Some of the more unusual names are "Antelope," "Cannon Ball," "Firefly," "Hummer," "Flying Crow," "Lark," "Meteor," "Night Hawk," "Ranger," and "Minute Man."

Never Again

THREE things never come again—
Never to the bow that bends
Comes the arrow that it sends;
Never comes the chance that passed,
That one moment was its last;
Never shall thy spoken word
Be again unsaid, unheard.

—ROSE T. COOKE.